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AGRICULTURAL MACHINERY SERVICE DEPARTMENT OPERATING PROCEDURES. AGRICULTURAL MACHINERY--SERVICE OCCUPATIONS, MODULE NUMBER 2.

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ONE OF A SERIES DESIGNED TO HELP TEACHERS PREPARE POSTSECONDARY STUDENTS FOR AGRICULTURAL MACHINERY SERVICE OCCUPATIONS AS MECHANICS, MECHANIC'S HELPERS, PARTS MEN, AND SERVICE SUPERVISORS, THIS GUIDE AIMS TO DEVELOP STUDENTS' KNOWLEDGE OF THE OPERATING PROCEDURES OF A SERVICE DEPARTMENT AND ABILITY TO CARRY OUT THE FUNCTIONS OF A SERVICE EMPLOYEE. IT WAS DEVELOPED BY A NATIONAL TASK FORCE ON THE BASIS OF RESEARCH FROM STATE STUDIES. SUBJECT MATTER IN THE UNIT COVERS--(1) IMPORTANCE AND FUNCTION OF A SERVICE DEPARTMENT, (2) LAYOUT AND EQUIPMENT, (3) THE SELLING OF SERVICES, (4) WORK SCHEDULES AND JOB TICKETING PROCEDURES, (5) SERVICE PRICING, (6) PREDELIVERY AND DELIVERY SERVICING, AND (7) WARRANTY ALLOWANCE. TEACHING-LEARNING ACTIVITIES, INSTRUCTIONAL MATERIAL, REFERENCES, AND SUGGESTIONS FOR EVALUATING THE MODULE ARE GIVEN. THE SUGGESTED TIME ALLOTMENT IS 30 HOURS OF CLASS INSTRUCTION, 36 HOURS OF LABORATORY EXPERIENCE, AND 96 HOURS OF OCCUPATIONAL EXPERIENCE. TEACHERS OF THE COURSE SHOULD HAVE EXPERIENCE WITH AGRICULTURAL MACHINERY. STUDENTS SHOULD HAVE MECHANICAL APTITUDE AND AN OCCUPATIONAL GOAL IN AGRICULTURAL MACHINERY. THIS DOCUMENT IS ALSO AVAILABLE FOR A LIMITED PERIOD AS PART OF A SET (VT 000 488 THROUGH VT 000 504) FROM THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION, THE OHIO STATE UNIVERSITY, 980 KINNEAR ROAD, COLUMBUS, OHIO 43212, FOR $7.50 PER SET. (JM)

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AGRICULTURAL MACHINERY SERVICE DEPARTMENT OPERATING PROCEDURES

One of Sixteen Modules in the Course Preparing for Entry in
AGRICULTURAL MACHINERY - SERVICE OCCUPATIONS

Module No. 2

The Center for Research and Leadership Development
in Vocational and Technical Education

The Ohio State University
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Columbus, Ohio, 43212

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AGRICULTURAL MACHINERY SERVICE DEPARTMENT OPERATING PROCEDURES

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AGRICULTURAL MACHINERY SERVICE DEPARTMENT OPERATING PROCEDURES

Major Teaching Objective

To develop (1) an understanding of the operating procedures of an agricultural machinery service department and (2) the ability to carry out the functions of a service employee.

Suggested Time Allotments

At School

Class instruction	30 hours	
Laboratory experience	36 hours	
Total at school		66 hours
Occupational experience		96 hours
Total for module		162 hours

Suggestions for Introducing the Module

The service department is an integral part of the agricultural machinery dealership. It, along with the parts department, is one of the main customer attractions to the dealership and is often the only department within the dealership with which the customer does business regularly. To the agricultural machinery dealer, the service department is the dealer's master salesman. The service department keeps the customer "sold" by reselling him time and time again on the dependability of the dealer's entire establishment. A good job of repairing, diagnosing trouble, and servicing agricultural machinery sells new and used goods for the future.

A person preparing for employment as a service department employee must understand thoroughly the function of the service department and the procedures employed in carrying out its business. He must understand dealership layout and equipment requirements, service selling, work scheduling and job ticketing procedures, service pricing, pre-delivery and delivery servicing, and warranty allowances.

Some activities to stimulate interest in the module are as follows:

1. Tour a local agricultural machinery service department, emphasizing the equipment and facilities used by service employees and the services rendered to customers. Have the local dealer make a comparison between the dollar volume of his service department and that of his equipment sales division.

2. Have a farmer speak to the class on the importance of the service department and the service he expects from the agricultural machinery service department.

Competencies to be Developed

I. To develop an appreciation of the importance of the service department and the role service employees play in the total operation of the dealership

Teacher Preparation

Subject Matter Content

A good, well-managed service department builds the business of the dealership.

1. Efficient service brings customers in contact with new and used equipment and thus increases sales.

2. An efficient, dependable service department establishes dependable customers.

3. The service department attracts trade by developing customer confidence in the dealership.

Labor is the commodity sold in the service department of an agricultural machinery dealership.

1. It is bought and sold in the same manner as new and used equipment and repair parts.

2. Every job performed in the service department is a sale of labor.

3. Every minute spent by a mechanic or set-up man in the service department must be accounted for as either gain or loss.

4. Efficiency in the service department requires highly organized management with rigid control of the labor force and work to be done.

The service department is a very important segment of the total agricultural machinery dealership operation.

1. Service department labor revenue in the average agricultural machinery dealership accounts for five to seven percent of the total sales volume. Small as the figure is, in many cases it may make or break the dealership.

2. Relationships between the dealer and customer depend on efficient service department work.

Efficient service department labor does more than repair machines.

1. It develops customer confidence in the whole dealership.

2. It enables a dealer to hold his customers.

The following items have been identified as the chief factors causing inefficient service department operation:

1. Poor working conditions

2. Lack of common tools, special tools, and cleaning facilities

3. Inconvenience in obtaining replacement parts

4. Frequent interruptions of the work schedule

5. Lack of product service knowledge

6. Lack of planning and coordination by the chief mechanic or foreman

7. Lack of apprentices in training to replace retiring workers or to permit dealership expansion.

Competent personnel is the key to successful service department management.

1. A serviceman with low productivity ties up as much space and tooling equipment as a good serviceman. The efficiency, and, ultimately the profit possibilities, of such an employee are low.

2. Poor work turned out by service personnel in a dealership spoils customer confidence in the dealership and sends the customer elsewhere for service.

3. Through time allocated by the manager of the local agricultural machinery dealership, the skill level of the service department employee can be raised by his local manager's sending him to company-sponsored service schools.

A competent service department employee must be well-acquainted with his job responsibilities and capable of performing them with a high degree of speed and accuracy. He will be required to perform a variety of activities. He must be able to do the following:

1. Make general repairs on all agricultural machinery.
2. Handle agricultural machinery repairs on the farm
3. Make pre-delivery checks on all new machines.
4. Re-condition machines taken in trade-in
5. Pre-service demonstration units.
6. Take care of the service area and equipment
7. Maintain excellent customer relations.

Efficient service employees display the following personal attributes:

1. A pleasing personality
2. Courtesy when dealing with customers and other employees
3. A thorough knowledge of farm machinery
4. Dependability
5. Good, neat work habits
6. An aptitude for diagnosing machinery problems and making necessary corrections
7. Loyalty toward the dealership

The shop supervisor is directly responsible for conducting an efficient, orderly service department. His functions include:

1. Directing service personnel activities in the shop
2. Supervising, instituting, and scheduling mechanics training programs
3. Supervising housekeeping in the service department

4. Following the progress of each job assigned to each mechanic

5. Inspecting and checking work completed by the mechanics

6. Seeing that all new tractors and other new equipment are prepared properly before delivery to the customer

7. Directing the repairs and maintenance of all machines brought in by customers

8. Overseeing the re-conditioning, repairing, and handling of all used or traded-in pieces of equipment

9. Supervising the installation of additional attachments or equipment on new tractors and other machinery

10. Inspecting and recommending corrective measures for machinery being used by the customer while he is in the service department

11. Analyzing product problems, taking corrective action, and exerting control on warranty expenses

12. Referring employee problems to the management, in order to create better employer-employee relations

The degree of success the service department supervisor has in carrying out the above activities depends on his ability to lead and direct those who are working under him.

The service supervisor should exert leadership in the following ways:

1. Treat employees with consideration.

2. Be fair but firm.

3. Set a good example for other service personnel to follow.

4. Take his work seriously.

5. Make other people feel important.

6. Have drive, but do not drive other people.

7. Maintain loyalty to the dealer.

8. Like people and be friendly.

9. Be a good listener and welcome suggestions.

Suggested Teaching-Learning Activities

1. Show charts (as overhead transparencies, if possible) pertaining to the responsibilities of a service employee and shop supervisor.

2. Have each student develop a list of the functions carried out by an employee in each of the job classifications in the service department.

3. Bring an agricultural machinery dealer to the class to speak on the role of the service department in his dealership.

4. Bring a service employee to the class to explain his job responsibilities.

5. Set up interrogating panels composed of class members to quiz both the dealer and the service employee.

6. Have students visit an agricultural machinery dealership and observe the activities carried out in the service department.

7. Have students talk with farmers at the dealership about their machinery problems.

Suggested Instructional Materials and References

Instructional Materials

Overhead transparencies

References

S* 1. Farm and Power Equipment Retailer's Handbook, Pages 395-399.

S 2. Management Course in Dealer Service Operations, Section III, pages 1-6.

S 3. Service Center Management, Personnel Section, Pages 1-3.

*The symbol T (teacher) or S (student) denotes those references designed especially for the teacher or for the student.

II. To understand service department layout and equipment requirements

Teacher Preparation

Subject Matter Content

The service department uses the largest amount of floor area in the agricultural machinery dealership. (Refer to Farm Power and Equipment Retailer's Handbook, pages 74-76.)

All the space allotted to the service department must be properly used to produce maximum profits for the dealership.

A well-laid-out service department usually has the following features:

1. Accessibility to all equipment and service areas
2. A good floor pattern for work being done in the service department
3. Work stalls that are sufficiently large and well-equipped to handle jobs coming into the service department
4. Areas large enough to service large equipment, such as combines
5. Good use of natural light
6. Work rooms for performing special jobs, such as paint room and diesel tune-up area
7. Service equipment located in areas where it can be easily used
8. Easy access to the parts department
9. A handy loading and unloading area, including a dock
10. Suitable clean-up facilities for employees
11. A service supervisor's desk and library area

Various service department layout patterns are used by agricultural machinery dealers. These patterns emphasize service department efficiency by making maximum use of the space available in the department. The following patterns are commonly used by agricultural machinery dealerships:

1. "U"-shaped
2. "O"-shaped
3. "T"-shaped
4. "I"-shaped
5. "L"-shaped

(See Service Center Management, page one, for examples.)

In the service department, specific well-defined areas are used to conduct certain service department activities. The areas are:

1. Work stalls
2. Welding area
3. Steam cleaning and painting area
4. Light workroom
5. Tool storage area
6. Parts cleaning area
7. Supervisor's desk area, which includes the library for the service department

(See Management Course in Dealer Service Operations, Section IV, page 5; and Farm and Power Equipment Retailer's Handbook, pages 442-443, for examples of the above.)

An efficient service department usually contains the following pieces of large equipment:

1. High and low speed grinders
2. Valve grinder
3. Air compressor
4. Steam cleaner
5. Drill press
6. Dynamometer

7. Industrial welder

8. Oxyacetylene welder

9. Painting equipment

10. Hydraulic press and puller set

In addition to the heavy equipment listed above, the well-equipped service department includes many smaller specialized tools and pieces of equipment. (See Farm and Power Equipment Retailer's Handbook, pages 436-440, for a suggested list of tools and equipment.)

Suggested Teaching-Learning Activities

1. Present to the class several local dealership building layouts, emphasizing the space used by the service department.

2. Present several patterns of service department layouts, emphasizing the areas in which the various service department activities are conducted.

3. Have the class visit a local agricultural machinery dealership and draw up a detailed floor plan of the service area arrangements with location of equipment. Have the supervisor of the service department discuss alternative and/or ideal service layouts with which he would like to work.

4. Have students find out the replacement value of the machines used in a service department of an agricultural machinery dealership.

5. Have some students visit other machinery dealerships individually to draw up floor plans of service area arrangements and location of equipment. Students should present the floor plans to the class for analysis of their differences and similarities and, ultimately, their efficiency.

Suggested Instructional Materials and References

Instructional Materials

1. Transparencies or plans of local dealership bilding layouts

2. Transparencies of service department layouts

3. Drawing materials for the student to make detailed drawings of service departments

References

1. Farm Power and Equipment Retailer's Handbook, pages 74-76, 436-499.

2. Service Center Management, Service Center Layout Section, pages 1-3.

3. Management Course in Dealer Service Operations, Section IV, pages 1-10.

III. To understand the selling of service

Teacher Preparation

Subject Matter Content

The commodity for sale in the service department of an agricultural machinery dealership is labor.

Selling labor through service to the customer is the same as selling a tractor or piece of machinery. The customer must be made aware of the services available to him through the service department and the advantages of buying such service.

The customer purchases service from the agricultural machinery dealership for several reasons.

1. Inability to perform service jobs for himself because of lack of knowledge or skill

2. Lack of time to make repairs and/or needed adjustments on machinery

3. Belief that work done by trained, experienced persons will save money

In order to sell service, the dealer must follow these rules:

1. Take the initiative and ask farmers when they can spare the equipment for two or three weeks during slack periods of work.

2. Have a good sales-minded service supervisor supported by mechanics with good local reputations.

3. Have a completely equipped, clean, and well-arranged shop.

4. Use local advertising media to supplement personal calls to induce farmers to bring in repair work.

5. Charge reasonable rates.

6. Provide enough room in shop, tool, and paint rooms.

7. Maintain efficient work schedules.

The responsibility for developing and directing programs for selling service rests with the service department supervisor.

1. It is one of the activities normally associated with his job.

2. The selling program set up by the service department supervisor is aimed at preventive maintenance. It should

   a. Identify sources of trouble and mechanical failure.

   b. Inform the farmer about costs and inconveniences caused by such trouble or failure.

   c. Present authentic and up-to-date information about corrective and preventive maintenance of agricultural machinery.

   d. Inform customers of their potential problems and ways of solving them in the service department.

   e. Present a plan of action to correct or prevent machinery problems.

   f. Have a budget on which to operate and a schedule for advertising and promotion.

A variety of advertising media is used by agricultural machinery service supervisors in carrying out the above program.

1. Newspapers

2. Radio and T.V.

3. Direct mail advertising

4. Service sales through the sales department

5. Retail sales of parts and accessories

6. Displays

7. Customer days

8. Service specials

(See references listed for further information on each of the above.)

Successful service selling campaigns depend primarily on the following factors:

1. Proper timing

2. Use of a personalized approach in selling

3. Constant advertising throughout the year

4. Effective use of all advertising media

5. Ability of service department employees to carry out the services advertised

A very important, but often overlooked, item in selling service is maintaining a clean, neat, and attractive service department.

1. It enables service employees to do their best work, improves their efficiency, and raises their morale.

2. It impresses regular and prospective customers with the efficiency of the service department.

3. It develops customer confidence in the dealership

Suggested Teaching-Learning Activities

1. After discussion of content materials in class, bring a service department supervisor to class to discuss service selling with the class. Use a questioning panel to stimulate discussion after his talk.

2. Have each student interview an above average farmer in the community to find out how often he takes his machinery to the local agricultural machinery dealer for repair, adjustment, and tune-up. Have each student report his findings to the class. As the reports are given, identify the common services used by all farmers.

3. Have each student select a shop item and set up advertisements using the following media: the newspaper, radio, direct mail, displays, and service specials.

4. Have students make a list of the ways they have seen agricultural machinery services advertised.

5. Invite a person from an advertising firm to discuss advertising of agricultural machinery with the class.

Suggested Instructional Materials and References

Instructional Materials

1. Materials for use in setting up service department displays

2. Sample advertisements of service selling from newspapers, radio, direct mail and service specials

References

1. Service Center Management, Selling Service Section, pages 1-5.

2. Management Course in Dealer Service Operations, Section IV, pages 1-3.

3. Farm and Power Equipment Retailer's Handbook, pages 408-411.

Suggested Occupational Experiences

1. Have students prepare displays of services in local dealerships.

2. In cooperation with a dealer and a local radio announcer, write a script for a spot announcement advertising services available at the agricultural machinery dealership.

3. Have students select a special service offered by a dealership and set up and direct a complete sales campaign for it.

IV. To understand work scheduling and job ticketing procedures in agricultural machinery dealerships

Teacher Preparation

Subject Matter Content

Scheduling service department work on an efficient, systematic basis is of utmost importance to the success of the department's operation. It is necessary to know what time is available at all times in order to schedule and complete service work quickly.

The service supervisor is responsible for seeing that time is used wisely. He uses a serviceman's schedule, which provides the following information:

1. Each service employee's number
2. Open hours on a daily basis
3. Forecast of work on a weekly basis

This schedule is valuable in exposing inefficiency in service department operation.

1. The service department supervisor can review the work schedule of each employee and check his progress.
2. The supervisor can check the progress of the entire department in terms of the goals set up for the week.
3. He can use the schedule to keep work available at all times and avoid time waste.
4. He can use it to schedule the right man for the right job, such as a skilled mechanic to overhaul a Diesel tractor, and a mechanic's helper to put new brushes in a generator.

   (See references for examples of service department work schedules.)

The final and perhaps most important step in completing work in the service department is filling out the job ticket.

Often, important items don't get charged to the customer as a result of negligence on the part of the service employee who did the work. The job ticket provides the following information which should be carefully recorded when the customer brings the machine to the service department and immediately after the work on that machine has been completed:

1. Customer's name, address and phone number

2. Method of payment for work done in the service department- cash, charge, no expense

3. Complete description of the work to be done on the machine

4. Customer's signature authorizing the work to be done

5. Machine model, chassis, serial number, engine number, etc.

6. New parts put on the machine and their costs

7. Outside labor and materials used in repairing the machine and their costs

8. Amount of oil and grease used

9. Amount of labor and its cost

(For an example of the job ticket above, refer to Service Center Management reference.)

Service employees must complete job tickets with the utmost care. One of the biggest losses of profits in the service department results from incomplete charges on the job ticket.

The daily time ticket is used by dealers to determine accurately the amount of time spent by service employees in doing the work scheduled.

1. It provides the manager with a daily payroll form, if needed.

2. It provides the service employee with a daily summary to check his gross earnings if he is paid on an hourly or flat rate basis.

3. It provides the dealer with information to check the efficiency of his pricing system.

When a repair order describing the work to be performed is handed to the mechanic, the bottom perforation should be filled out showing

1. The repair order number
2. The operator number or description
3. The mechanic's number or name
4. The time the work was started and completed

When the daily time ticket is completed, it is glued to the back of the job ticket. The second copy goes to the service supervisor, and the third copy is kept by the service employee.

Suggested Teaching-Learning Activities

1. Set up examples of work scheduling situations and have each student schedule the work to be done. Provide him with a service department floor plan to use as he works out the work schedule. Have the student consider the following when setting up the schedule:
   a. Number of service employees
   b. Space available in the service department to carry out the work to be scheduled
   c. Time requirements necessary to carry out the work to be scheduled
2. Set up examples of jobs which have been completed in the service department and have the students complete a job ticket on each job.

Suggested Instructional Materials and References

Instructional Materials

Work schedule forms and job tickets used by major agricultural machinery companies

References

1. Service Center Management, Scheduling Work and Job Tickets Sections.

2. Management Course in Dealer Service Operations, Section VII, pages 1-6.

Suggested Occupational Experiences

1. Supervise students in scheduling work to be done in the service department using required forms.

2. Assign each student a job to complete, such as installing new electric wiring on a tractor. Have him fill out a job ticket before starting the job, and a daily time ticket after completing it.

3. Send students on simple service calls. Have them complete field service reports upon return and give them to the service supervisor.

V. To understand service pricing

Teacher Preparation

Subject Matter Content

Two methods of pricing service work are used by agricultural machinery dealerships.

1. By the hour

2. By the job (flat rate)

Three factors are considered by agricultural machinery dealers in determining the price to charge for service work.

1. The costs involved in completing the job and the margin the dealer must charge to break even or show a profit on the job

2. The amount that should be charged to cover labor costs

3. The competition the dealer faces from other dealer service departments

Hourly service pricing is a predetermined charge per hour for the actual time to complete the work on the customer's machine.

1. This method requires a fixed hourly rate for services rendered.

2. The rate established by the dealer must cover the cost of the serviceman's time and operating and overhead costs. (See Farm and Power Equipment Retailer's Handbook, page 429, for examples of hourly rates.)

Flat rate pricing is based on the job instead of the time spent.

1. The price for the job is based on a time allowance predetermined for the job.

2. Job time is converted to service selling price by multiplying the average hours allowed by the service labor charge rate.

3. Pricing by the job encourages efficiency by emphasizing the number of jobs completed rather than the time to complete each of them.

Flat rate pricing has these advantages over hourly pricing:

1. Quick and easy estimating
2. One fair price for industrial jobs
3. Fairer prices on interrupted jobs
4. Jobs priced at their true value
5. Incentive to reduce job time
6. Recovery of tool investment
7. Fairer basis for paying service employees
8. Minimum supervision
9. Reduction of misunderstandings
10. Aid in promoting service
11. Aid in trade-in deals

12. Standardized basis for warranty

13. Increased shop earning capacity

Flat rate pricing schedules for use by agricultural machinery service departments in pricing service jobs have been developed and are available from Implement and Tractor Publications, Inc., and from the major line company offices. These sources of flat rate information give the following information:

1. The job number

2. A description of the job

3. Estimated time required to complete the job

4. Suggested price to charge the customer for work completed on each piece and make of machinery

The service employee should thoroughly understand when and how to use the flat rate manual when pricing service by flat rate.

Suggested Teaching-Learning Activities

1. Using a local dealership as an example, if possible, have students compute the total cost of operating a dealership service department and the hourly charge rate necessary to break even or make a profit. Use as reference page 6 in the Service Center Management Manual.

2. Have the student compare the cost of doing a job in the service department as computed by the hourly and flat rate methods.

Suggested Instructional materials and References

Instructional Materials

Implement and Tractor Flat Rate Manual

References

1. Farm and Power Equipment Retailer's Handbook, pages 427-435.

2. Service Center Management Manual, Flat Rate Section, pages 1-7.

3. Implement and Tractor Flat Rate Manual.

Suggested Occupational Experience

Have students price service jobs as they leave the service department. Have them compute the price both by the hourly and flat rate methods.

VI. To understand pre-delivery and delivery servicing

Teacher Preparation

Subject Matter Content

Pre-delivery and delivery servicing of agricultural machinery is a function of the agricultural machinery service department.

1. Proper pre-delivery and delivery service develops good customer relationships and builds customer confidence in the dealership.

2. The dealer has the satisfaction of knowing that each machine has been properly checked and is in top working condition when the machine is delivered to the customer.

3. Proper pre-delivery and delivery servicing prevents misunderstandings between the customer and the dealer that could arise because of incorrect operating and maintenance procedures on the farm.

It is important that service employees follow specific procedures when performing pre-delivery servicing and delivering new agricultural machinery. These procedures fall into specific areas of activity.

1. Receiving

2. Warehousing and storage

3. Preparing for delivery

4. Delivery

(See Service Center Management Manual for activities to be carried out in each area.)

Agricultural machinery is sent to the local agricultural machinery dealership in small units to lower freight costs, and to allow for limited storage space at the dealership.

Agricultural machinery dealers order their supply of tractors and other machinery well in advance of the time they are to be sold. When they arrive, they must be checked for damage in shipment and properly stored. Instructions for proper storage of each machine are provided in the operator's manual and storage instructions from the company branch house.

Special aids have been developed by some major-line agricultural machinery companies for carrying out pre-delivery and delivery service activities on new machines. These aids, supplied by the company, come in the form of a list of activities to be performed prior to and at the time of delivery of machines to customers.

1. This list identifies specific items that need to be checked at the dealership before the machine is delivered.

2. It notes specific maintenance and operative items to be discussed with the customer at the time of delivery.

3. It sets up a time for after-delivery inspection.

The operator's manual for each machine is the guide to proper pre-delivery service. The machine should be set-up and serviced according to the specifications prescribed in the operator's manual.

At the time the machine is delivered to the customer, the serviceman should try out the machine in the field. Any part of the machine that is not functioning properly can be identified and final adjustments made before leaving the customer's property. The serviceman delivering the machine must understand the machine and how it functions in order to avoid future problems arising from errors made in pre-delivery servicing and delivery of the machine.

State regulations should be carefully followed when hauling agricultural machinery to the farmer. These govern load-widths, total tonnage, speeds for traveling with a load, etc. These regulations, which vary from state to state, can be obtained from the state highway commission in each state.

<u>Suggested Teaching-Learning Activities</u>

1. Have students service a new tractor obtained from a local agricultural machinery dealership.

2. Have students set-up and service several agricultural machines, such as, corn planters, grain elevators, and hay balers. Require students to use the pre-delivery service forms and operator's manual for each machine.

Suggested Instructional Materials and References

Instructional Materials

1. Agricultural machinery pre-delivery and delivery check lists

2. Operator's manuals

3. A new tractor and several other new agricultural machines

References

1. Service Center Management Manual, Pre-delivery and Delivery section, pages 1-3.

2. Management Course in Dealer Service Operations, Section VII, page 12.

Suggested Occupational Experiences

1. Have students pick up an order of new machines and machine parts at the company branch house.

2. Have students prepare for and store new machines received by the dealership.

3. Have students perform pre-delivery service and deliver new machines to the customer.

VII. To understand agricultural machinery warranty allowance

Teacher Preparation

Subject Matter Content

New and unused company machinery and parts are warranted to be free from defects in material and workmanship when they are sent to the agricultural machinery dealership by the company.

Under the warranty, the company is obliged to repair or replace any part or parts that prove to be defective because of defective material or workmanship at the factory.

As a representative of the company, the local agricultural machinery dealership replaces defective parts free of charge.

Warranty allowances are made by agricultural machinery dealerships on (1) parts, and (2) labor.

When a defect in materials and workmanship is found by the agricultural machinery dealer or by the customer, a warranty claim should be filed with the company branch house.

1. The agricultural machinery dealer must file the claim with the branch house.

2. The service employee must be able to detect unjust and unfair claims made by the customer.

3. The service employee must understand the function of the part in question thoroughly and be able to detect whether the defect is inherent in the part or was caused by improper maintenance or misuse by the customer.

The service supervisor is in charge of filing all warranty claims.

1. The claims must be filed within the time period allotted by the company for reporting all warranty claims.

2. Warranty claims should be filed on a daily basis to insure company consideration of the claim.

3. The warranty claim form should be filled out completely and details given whenever necessary.

4. The warranty claim and the defective part should then be sent to the company branch house.

5. When a freight bill and/or labor cost is involved, a copy of the freight bill and the job ticket signed by the customer must be attached to the warranty claim.

<u>Suggested Teaching-Learning Activities</u>

1. Have a service supervisor speak to the class on making warranty judgments.

2. Have students study parts with defects in materials and workmanship that have been returned to the company branch house for warranty adjustment.

3. Give each student a defective machine part and have him complete a warranty claim form for it.

Suggested Instructional Materials and References

Instructional Materials

1. Defective agricultural machine parts

2. Warranty claim forms supplied by the major-line agricultural machinery companies

References

1. Service Center Management Manual, Warranty Section, pages 1-9.

2. Management Course in Dealer Service Operations, Section VII, pages 7-10.

Suggestions for Evaluating Educational Outcomes of the Module

The following criteria should be used to evaluate the educational outcome of the module:

1. Student interest in the materials covered in this module

2. Changes in attitude on the part of the student toward his work

3. The extent of participation by each student in class activities

4. The ability of the student to perform the task assigned him on the job

5. The ability of the student to carry out assigned class activities

6. Evaluation of the quality of work done by the student on the job by the occupational experience supervisor and by his employer

Sources of Suggested Instructional Materials and References

1. Wilson, L.W. Farm and Power Equipment Retailer's Handbook, National Farm and Power Equipment Dealers Association. 2340 Hampton Avenue, St.Louis, Missouri, 1964. Price $8.

2. Implement and Tractor Flat Rate Manual, Implement and Tractor Publishers, Inc., 1014 Wyandotte Street, Kansas City, Missouri.

3. Management Course in Dealer Service Occupations, Indianapolis, Indiana: Massey-Ferguson Training Center.

4. Service Center Management Manual, Chicago, Illinois: International Harvester Company, 180 N. Michigan Avenue.

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THE OHIO STATE UNIVERSITY
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COLUMBUS, OHIO, 43212

INSTRUCTOR NOTE: As soon as you have completed teaching each module, please record your reaction on this form and return to the above address.

1. Instructor's Name_____

2. Name of school_____State_____

3. Course outline used: _____Agriculture Supply--Sales and Service Occupations
_____Ornamental Horticulture--Service Occupations
_____Agricultural Machinery--Service Occupations

4. Name of module evaluated in this report_____

5. To what group (age and/or class description) was this material presented?____
_____

6. How many students:
a) Were enrolled in class (total) _____
b) Participated in studying this module _____
c) Participated in a related occupational work experience program while you taught this module _____

7.

Actual time spent teaching module:		Recommended time if you were to teach the module again:
_____hours	Classroom Instruction	_____hours
_____hours	Laboratory Experience	_____hours
_____hours	Occupational Experience (Average time for each student participating)	_____hours
_____hours	Total time	_____hours

(RESPOND TO THE FOLLOWING STATEMENTS WITH A CHECK (✓) ALONG THE LINE TO INDICATE YOUR BEST ESTIMATE.)

	VERY APPROPRIATE	NOT APPROPRIATE
8. The suggested time allotments given with this module were:		
9. The suggestions for introducing this module were:		
10. The suggested competencies to be developed were:		
11. For your particular class situation, the level of subject matter content was:		
12. The Suggested Teaching-Learning Activities were:		
13. The Suggested Instructional Materials and References were:		
14. The Suggested Occupational Experiences were:		

(OVER)

15. Was the subject matter content sufficiently detailed to enable you to develop the desired degree of competency in the student? Yes_____No_____
Comments:

16. Was the subject matter content directly related to the type of occupational experience the student received? Yes_____No_____
Comments:

17. List any subject matter items which should be added or deleted:

18. List any additional instructional materials and references which you used or think appropriate:

19. List any additional Teaching-Learning Activities which you feel were particularly successful:

20. List any additional Occupational Work Experiences you used or feel appropriate:

21. What do you see as the major strength of this module?

22. What do you see as the major weakness of this module?

23. Other comments concerning this module:

_____ _____
(Date) (Instructor's Signature)

_____
(School Address)